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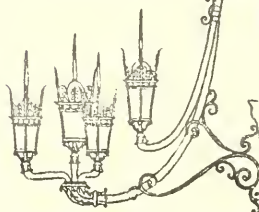


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BOSTON REDEVELOPMENT AUTHORITY

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WASHINGTON PARK URBAN RENEWAL AREA
Project No. MASS. R-24

REPORT - PART I

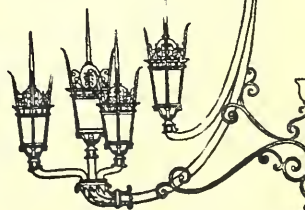
ON

FEASIBILITY OF PLACING UTILITY SERVICES UNDERGROUND

FAY, SPOFFORD & THORNDIKE, INC.
Engineers
Boston, Massachusetts

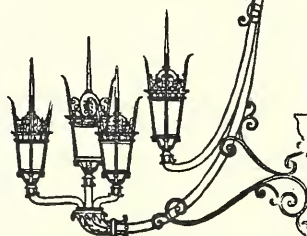
October, 1964

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CITY OF BOSTON AND COUNTY OF SUFFOLK

DEPARTMENTAL COMMUNICATION

May 4, 19 65

	(NAME)	(RATING)	(DEPARTMENT-DIVISION)
	Frederick L. Garvin	Division Engineer	Engineering Division
OM	James W. Haley	Commissioner	Public Works Department

SUBJECT: Utilities - Edison etc.
Washington Park

FILE REF. NO.


If you ever made any sense of this report, I would appreciate you and Thornquist enlightening me.

I have gone over it several times and end up no where - but there is a suggestion that new U.G. (underground) be installed here and there.

Therefore, we are responsible to make sure it is done (if it is to be done) before street construction.

Please advise.

JWH:ag



February 5, 1965

Commissioner James W. Haley
Public Works Department
Administration Services
City Hall Annex
Boston, Massachusetts 02109

Dear Commissioner Haley:

In the Washington Park Project we propose to place all utilities underground in areas where new construction is taking place. In areas which have rehabilitation, the private utility wiring will remain where it is. This distinction is for reasons of cost considerations only.

Although it is premature to say, we would hope to follow the same progress in our other residential areas.

To put it another way, where we have clearance sufficient for substantial new construction, we would propose to put all wiring underground otherwise to leave it alone.

If there is any further information you need in this regard, do not hesitate to be in touch with me.

Sincerely,

EJL/thrc

Edward J. Logue

cc: Mayor John F. Collins
Messrs. Rowland, McGrath, Green,
Tercyak, DelVecchio, DeSimone

RECEIVED
ENGINEERING
BOSTON REDEVELOPMENT AUTHORITY

MAY 21 1965

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FAY, SPOFFORD & THORNDIKE, INC.
ENGINEERS

BRIDGES AND OTHER STRUCTURES
WATER SUPPLY AND SEWERAGE
PORT AND TERMINAL WORKS
INDUSTRIAL BUILDINGS
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11 BEACON STREET • BOSTON, MASSACHUSETTS 02108

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VALUATIONS
INVESTIGATIONS, DESIGNS
SUPERVISION OF CONSTRUCTION

October 22, 1964

Mr. Wallace B. Orpin, Chief Engineer
Boston Redevelopment Authority
20 Pemberton Square
Boston, Massachusetts 02108

Dear Mr. Orpin:

We are pleased to submit herewith our report on the feasibility of placing power, telephone, fire alarm and police signal systems underground or along rear lot lines in Priority Areas No. 1, No. 2, No. 3 and No. 4, Washington Park, Roxbury, Project No. Mass. R-24. This report is in accordance with your letter of authorization dated September 16, 1964, and Section 15.2 of the agreement dated June 1964, between the Boston Redevelopment Authority and Fay, Spofford & Thorndike, Inc.

In accordance with the above letter of authorization, feasibility and costs for underground power and telephone house connections have not been included in the report.

In accordance with verbal instructions, we shall hold in abeyance work on areas other than the priority areas pending further authorization by the Authority.

The report is largely the result of work done by or under the direction of Mr. E. S. Warner, head of our Electrical Department, with general coordination by Mr. D. M. Thornquist, Engineer on our staff who is designated Project Engineer on our work for the Authority.

Very truly yours,

FAY, SPOFFORD & THORNDIKE, INC.

By

EC/Keane

ECKeane:mtm
Lg-16(a)
Enclosure

BOSTON REDEVELOPMENT AUTHORITY

WASHINGTON PARK URBAN RENEWAL AREA
Project No. MASS. R-24

REPORT - PART I
ON
FEASIBILITY OF PLACING UTILITY SERVICES UNDERGROUND

FAY, SPOFFORD & THORNDIKE, INC.
Engineers
Boston, Massachusetts

October, 1964

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REPORT

A. SCOPE

This report covers the feasibility of placing power, telephone, fire alarm and police signal systems underground or along rear lot lines wherever economically justified or required by new street construction.

A separate report is being prepared for the City of Boston Public Works Department on the street lighting system in all of Washington Park Urban Renewal Area R-24 stating recommendations and estimated costs of the work; therefore, street lighting, except as required for coordination purposes, is not covered in this report. Another separate report is being prepared covering recommended improvements to streets. Our recommendations regarding utilities in particular streets are somewhat dependent on whether street reconstruction is intended.

This report covers only the streets in Priorities No. 1, No. 2, No. 3 and No. 4 as set up in BRA Memorandum 309 dated August 14, 1964. A supplementary report, "REPORT - PART II," will be prepared covering streets outside the four above-mentioned priority areas, as requested in BRA letter to Fay, Spofford & Thorndike, Inc., dated September 16, 1964.

On all new streets, private utilities owned by the Boston Edison Company and the New England Telephone and Telegraph Company, and municipal services consisting of fire alarm and police signal systems owned by the City of Boston, will be installed underground in duct and manhole system.

A. SCOPE (Cont.)

All fire alarm and police signal system extensions, regardless of street work recommended, will be installed underground in ducts or in duct and manhole system.

The cost estimates in this report do not cover the cost of house connections of underground electric and telephone services but only services in public ways up to private property lines.

B. SUMMARY OF COSTS

<u>Priority No. 1</u>	<u>Costs</u>	
Power Distribution System	\$311,485.00	
Telephone System	95,075.00	
Fire Alarm System	35,260.00	
Police Signal System	<u>31,475.00</u>	\$473,295.00

<u>Priority No. 2</u>		
Power Distribution System	\$ 72,100.00	
Telephone System	8,000.00	
Fire Alarm System	4,600.00	
Police Signal System	<u>-</u>	84,700.00

<u>Priority No. 3</u>		
Power Distribution System	\$ 41,550.00	
Telephone System	-	
Fire Alarm System	51,425.00	
Police Signal System	<u>25,625.00</u>	118,600.00

<u>Priority No. 4</u>		
Power Distribution System	\$256,100.00	
Telephone System	18,950.00	
Fire Alarm System	14,150.00	
Police Signal System	<u>-</u>	289,200.00
	Total	\$965,795.00

Power Distribution System	Priority Nos. 1, 2, 3 & 4	\$681,235.00
Telephone System	Priority Nos. 1, 2, 3 & 4	122,025.00
Fire Alarm System	Priority Nos. 1, 2, 3 & 4	105,435.00
Police Signal System	Priority Nos. 1, 2, 3 & 4	<u>57,100.00</u>
	Total	\$965,795.00

C. TABULATION OF STREETS, PRESENT SERVICES, RECOMMENDED SERVICES AND COST ESTIMATES

The tabulation for Priorities No. 1, No. 2, No. 3 and No. 4 which follows shows the various streets in each priority area, their length, roadway and sidewalk width, present utility and municipal services, recommended utility and municipal services, and cost estimates for recommended services.

The legends used in the tabulation are as follow:

R	- Repaving of Roadway
O	- Overlaying of Roadway
S	- Sanitary or Storm Sewer
W	- Water Mains
N. S. I.	- No Street Improvements
UG-D	- Underground Duct and Manhole System
UG-SF	- Underground Split Fiber System
O. H.	- Overhead Construction on Street
O. H. -B. L.	- Overhead Construction, Back Lot
N. C.	- No Change

Because of varied conditions on the different streets and even on portions of the same street, the data require explanations and clarifications which are included in the text following the tabulation.

PRIORITY NO. 1

STREET	FROM	TO	LENGTH	ROADWAY & SIDEWALK WIDTH	TYPE OF WORK	PRESENT SERVICES					RECOMMENDED SERVICES					COST OF RECOMMENDED SERVICES					
						HOSTON POWER	EDISON STREETS	TEL.	FIRE ALARM	PUBLIC SIGNAL	HOSTON POWER	EDISON STREETS	TEL.	FIRE ALARM	PUBLIC SIGNAL	WATER	SEWER	FIRE ALARM	PUBLIC SIGNAL	TOTAL COST	
WASH. PARK BLVD.	WARREN	HUMBOLDT. AVE.	1100'	28-2 x 33-10	NEW STREET	-	-	-	-	-	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	-	49,500	27,500	6,350	-	83,350	
WASH. PARK BLVD.	HUMBOLDT AVE.	WASHINGTON	1830'	28-2 x 33-10	NEW STREET	-	-	-	-	-	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	82,350	45,750	12,700	13,750	154,550	
CHARLAMES (SEVEN STREETS)	LAUREL	CATAWBA	-	-	-	-	-	-	-	-	-	-	-	-	-	UTILITY INSTALLATIONS NOW UNDER CONTRACT					
CRESTWOOD PARK	TOWNSEND	TOWNSEND	-	-	-	-	-	-	-	-	-	-	-	-	-	WORK COMPLETED					
ELBERT	HUMBOLDT AVE.	HAZELWOOD	395'	6-23-6	R-S	U.G.-S.F.	O.H.	-	-	-	U.G.-D.	U.G.-D.	-	-	-	19,750	-	-	-	19,750	
HAROLD	MUNROE	HAROLD PARK	400'	7-26-7	R-W-S	U.G.-D.	O.H.-B.L.	O.H.-B.L.	-	-	N.C.	U.G.-D.	N.C.	-	-	-	-	-	-	-	
HAROLD	MUNROE	TOWNSEND	335'	7-26-7	R-W	O.H.	O.H.	O.H.-B.L.	-	-	U.G.-D.	U.G.-D.	N.C.	-	-	16,750	-	-	-	16,750	
HAZELWOOD	TOWNSEND	MUNROE	385'	5-23-7	R-W-S	O.H.	O.H.	-	-	-	U.G.-D.	U.G.-D.	-	-	-	19,250	-	-	-	19,250	
HUMBOLDT AVE.	WASH. PARK BLVD.	WALNUT AVE.	545'	10-40-10	R-S	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	N.C.	N.C.	N.C.	N.C.	U.G.-D.	-	-	-	10,225	10,225	
HUMBOLDT AVE.	WASH. PARK BLVD.	TOWNSEND	715'	10-40-10	R-S	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	N.C.	N.C.	N.C.	N.C.	N.C.	-	-	-	-	-	
MUNROE	HAZELWOOD	WARREN	640'	7-26-7	N.S.I.	O.H.	O.H.	O.H.	U.G.-D.	-	N.C.	N.C.	N.C.	U.G.-D.	-	-	-	7,800	-	* 7,800	
MUNROE	HUMBOLDT AVE.	HAROLD	770'	7-26-7	N.S.I.	O.H.	O.H.	O.H.	-	-	N.C.	N.C.	N.C.	U.G.-D.	-	-	-	7,050	-	* 7,050	
MUNROE	HAROLD	WALNUT AVE.	350'	7-26-7	N.S.I.	O.H.	O.H.	U.G.-D.	-	-	N.C.	N.C.	N.C.	-	-	-	-	-	-	* -	
HUMBOLDT COURT	HUMBOLDT AVE.	END	253'	7-24-56-7	NEW STREET	-	-	-	-	-	U.G.-D.	U.G.-D.	U.G.-D.	-	-	11,385	6,325	-	-	17,710	
TOWNSEND	WALNUT AVE.	HAROLD	420'	7-26-7	R-W-S	O.H.	O.H.	U.G.-D.	-	U.G.-D.	U.G.-D.	U.G.-D.	N.C.	U.G.-D.	U.G.-D.	21,000	-	1,360	7,500	29,860	
TOWNSEND	HAROLD	HUMBOLDT AVE.	850'	7-26-7	R-W-S	O.H.	O.H.	O.H.-B.L.	-	-	U.G.-D.	U.G.-D.	N.C.	-	-	41,500	-	-	-	41,500	
TOWNSEND	HUMBOLDT AVE.	HAZELWOOD	400'	7-26-7	R-W	O.H.	O.H.	O.H.	-	-	U.G.-D.	U.G.-D.	U.G.-D.	-	-	20,000	500	-	-	20,500	
TOWNSEND	HAZELWOOD	WARREN	600'	7-26-7	R-W	O.H.	O.H.	O.H.	U.G.-D.	-	U.G.-D.	U.G.-D.	U.G.-D.	N.C.	-	30,000	15,000	-	-	45,000	
WALNUT AVE.	WASH. PARK BLVD.	MUNROE	550'	8-30-40-8	O-S	U.G.-S.F.	U.G.-S.F.	U.G.-D.	U.G.-D.	U.G.-D.	N.C.	N.C.	N.C.	N.C.	N.C.	-	-	-	-	* -	
WALNUT AVE.	MUNROE	TOWNSEND	375'	8-30-40-8	O-S	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	N.C.	N.C.	N.C.	N.C.	N.C.	-	-	-	-	-	
PRIORITY NO. 1 TOTAL																	311,485	95,075	35,260	31,475	473,295

* SEE COMMENTS IN REPORT

* DENOTES EXISTING WIDTHS, EXCEPT FOR NEW STREETS

STREET	FROM	TO	LENGTH	ROADWAY & CURB			PREF. FIRE SERVICE					RECOMMENDED SERVICES					COST OF RECOMMENDED SERVICES				
				RENEWAL WIDTH	WORK	TON WER	EXTEN ST. LYE	TEL	FIRE ALARM	PHONE SIGNAL	COMMON TOWER	COMMON TELETS.	TEL.	FIRE ALARM	PHONE SIGNAL	POWER	TEL.	FIRE ALARM	PHONE SIGNAL	TOTAL COST	
CATAWBA	LAUREL	NEW SHERMAN	530'	7-26-7	N. S. I.	G.-D.	O.H.	O.H.-B.L.	-	-	U.G.-D.	U.G.-D.	H.C.	-	-	9,500	-	-	-	* 9,500	
DALE	WALNUT AVE.	SHERMAN	820'	7-26-7	R-S	U.G.-D.	U.G.-D.	U.G.-D.	-	-	H.C.	H.C.	H.C.	U.G.-D.	-	-	-	4,600	-	4,600	
DALE	SHERMAN	WARREN	260'	7-26-7	R-S	U.G.-D	O.H.	U.G.-D.	U.G.-D.	-	H.C.	U.G.-D.	H.C.	H.C.	-	-	-	-	-	-	
HUMBOLDT AVE.	TOWNSEND	DECKARD	270'	10-40-10	R	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	-	H.C.	H.C.	H.C.	H.C.	-	-	-	-	-	-	
HUMBOLDT AVE.	DECKARD	WAUMBECK	725'	10-40-10	R-S	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	-	H.C.	H.C.	H.C.	H.C.	-	-	-	-	-	-	
HUMBOLDT AVE.	WAUMBECK	HOWLAND	250'	10-40-10	N. S. I.	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	-	H.C.	H.C.	H.C.	H.C.	-	-	-	-	-	-	
HUMBOLDT AVE.	HOWLAND	CRAWFORD	300'	10-40-10	N. S. I.	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	-	H.C.	H.C.	H.C.	H.C.	-	-	-	-	-	-	
LAUREL	HUMBOLDT AVE.	CATAWBA	300'	7-26-7	R-W-S	U.G.-D.	O.H.	O.H.-B.L.	-	-	H.C.	U.G.-D.	H.C.	-	-	-	-	-	-	-	
LAUREL	CATAWBA	DALE	240'	7-26-7	N. S. I.	U.G.-D.	O.H.	O.H.-B.L.	-	-	H.C.	U.G.-D.	H.C.	-	-	-	-	-	-	-	
MILLS	DALE	ROCKLAND	460'	5-15-5	N. S. I.	U.G.-S.F.	O.H.	O.H.-B.L.	-	-	H.C.	H.C.	H.C.	-	-	-	-	-	-	-	
PICKERING AVE.	WALNUT AVE.	END	241'	5-19-5	N. S. I.	O.H.	O.H.	O.H.	-	-	H.C.	H.C.	H.C.	-	-	-	-	-	-	-	
ROCKLAND AVE.	DALE	ROCKLAND	442'	4-12-4	N. S. I.	U.G.-S.F.	O.H.	O.H.-B.L.	-	-	H.C.	H.C.	H.C.	-	-	-	-	-	-	-	
ROCKLAND	WALNUT AVE.	SHERMAN	550'	6-20-26-6	R	U.G.-S.F.	O.H.	U.G.-D	U.G.-D.	-	U.G.-D.	U.G.-D.	H.C.	H.C.	-	27,500	-	-	-	27,500	
SHERMAN	DALE	ROCKLAND	414'	5-16-5	R-W	U.G.-S.F.	U.G.-S.F.	O.H.-B.L.	-	-	U.G.-D.	U.G.-D.	H.C.	-	-	20,700	-	-	-	20,700	
WALNUT AVE.	DALE	ROCKLAND	475'	8-30-40-8	R-S	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	H.C.	H.C.	H.C.	H.C.	H.C.	-	-	-	-	-	
WALNUT AVE.	WASH. PARK BLVD.	DALE	945'	8-30-40-8	R-S	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	H.C.	H.C.	H.C.	H.C.	H.C.	-	-	-	-	-	
NEW SHERMAN	CATAWBA	DALE	320'	8-34-0	NEW STREET	-	-	-	-	-	U.G.-D.	U.G.-D.	U.G.-D.	-	-	14,400	8,000	-	-	22,400	

PRIORITY NO. 2 TOTAL 72,100 8,000 4,600 - 84,700

* SEE COMMENTS IN REPORT

DENOTES EXISTING WIDTHS, EXCEPT FOR NEW STREETS

PRIORITY NO 3

STREET	FROM	TO	LENGTH	# SIDEWALK WIDTH	STREET WIDTH	EXISTING SERVICES					RECOMMENDED SERVICES					COST OF RECOMMENDED SERVICES				
						WATER PIPE	SEWER PIPE	TEL.	FIRE ALARM	POLICE SIGNAL	BURTON POWER	SEC. ON ST. S.	TEL.	FIRE ALARM	POLICE SIGNAL	WATER POWER	FIRE ALARM	POLICE SIGNAL	TOTAL COST	
BRUNSWICK	WARREN	END	261'	7-26-7	R	U.G.-S.F.	O.H.	O.H.-B.L.	-	-	U.G.-D.	U.G.-D.	N.C.	-	-	13,050	-	-	13,050	
CRAWFORD	HUMBOLDT AVE.	ELM HILL AVE.	1086'	7-26-7	N.S.I.	O.H.	O.H.	O.H.	-	-	N.C.	N.C.	N.C.	U.G.-D.	-	-	-	3,900	3,900	
CRAWFORD	ELM HILL AVE.	WARREN	835'	7-26-7	N.S.I.	U.G.-D.	U.G.-D.	O.H.-B.L.	-	-	N.C.	N.C.	N.C.	U.G.-D.	-	-	-	4,950	4,950	
DECKARD	HUMBOLDT AVE.	WARREN	999'	7-26-7	O	O.H.	O.H.	O.H.-B.L.	-	-	N.C.	N.C.	N.C.	U.G.-D.	-	-	-	9,200	9,200	
ELM HILL AVE.	WARREN	CRAWFORD	765'	10-25-30-25	R-S	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	N.C.	N.C.	N.C.	N.C.	N.C.	-	-	-	-	
HOWLAND	HUMBOLDT AVE.	ELM HILL AVE.	1135'	7-26-7	N.S.I.	O.H.	O.H.	O.H.	O.H.	-	N.C.	N.C.	N.C.	U.G.-D.	-	-	-	9,550	9,550	
HOWLAND	ELM HILL AVE.	WARREN	680'	7-26-7	O	O.H.-B.L. U.G.-S.F.	O.H.	O.H.-B.L.	-	-	N.C.	N.C.	N.C.	-	-	-	-	-	-	
WABENO	WAUMBECK	WYOMING	445'	7-26-7	N.S.I.	U.G.-S.F. U.G.-D.	O.H.	O.H.-B.L.	-	-	N.C.	N.C.	N.C.	U.G.-D.	-	-	-	4,650	4,650	
WABON	WABENO	WARREN	870'	7-26-7	N.S.I.	U.G.-S.F.	O.H.	O.H.-B.L.	-	-	N.C.	N.C.	N.C.	-	-	-	-	-	-	
WAUMBECK	HUMBOLDT AVE.	WARREN	1370'	7-26-7	N.S.I.	U.G.-D. U.G.-S.F.	O.H.	O.H.-B.L.	-	-	N.C.	U.G.-D.	N.C.	U.G.-D.	U.G.-D.	-	-	13,125	25,625	38,750
WENONAH	WAUMBECK	ELM HILL AVE.	570'	7-26-7	R-W-S	U.G.-S.F.	O.H.	O.H.-B.L.	-	-	U.G.-D.	U.G.-D.	N.C.	-	-	28,500	-	-	28,500	
WYOMING	WABENO	WARREN	840'	7-26-7	N.S.I.	U.G.-S.F.	O.H.	O.H.-B.L.	-	-	N.C.	N.C.	N.C.	U.G.-D.	-	-	-	6,050	6,050	

PRIORITY NO 3 TOTAL 41,550 - 51,425 25,625 118,600

* SEE COMMENTS IN REPORT

DENOTES EXISTING STREET WIDTHS

PRIORITY NO 4 - PART I

FROM	FROM	TO	LENGTH	ROADWAY & SIDEWALK WIDTH	STREET WORK	PRESENT SERVICES					RECOMMENDED SERVICES					COST OF RECOMMENDED SERVICES				
						BOSTON POWER	EDISON ST. L.T.S.	TEL.	FIRE ALARM	POLICE SIGNAL	BOSTON POWER	EDISON ST. L.T.S.	TEL.	FIRE ALARM	POLICE SIGNAL	B.E. & O. POWER	TEL.	FIRE ALARM	POLICE SIGNAL	TOTAL COST
CRAWFORD	WALNUT AVE.	HOLLANDER	275'	7-26-7	R	U.G.-D. O.H.	O.H.	U.G.-D.	-	-	U.G.-D.	U.G.-D.	N.C.	-	-	13,750	-	-	-	13,750
CRAWFORD	HOLLANDER	WAUMBECK	225'	7-26-7	R	O.H.	O.H.	U.G.-D.	-	-	U.G.-D.	U.G.-D	N.C.	-	-	11,250	-	-	-	11,250
CRAWFORD	WAUMBECK	HAROLD	470'	7-26-7	R	O.H.	O.H.	O.H.	-	-	U.G.-D.	U.G.-D.	O.H.-B.L.	-	-	23,500	1,200	-	-	24,700
CRAWFORD	HAROLD	HUMBOLDT AVE.	700'	7-26-7	R	U.G.-S.F.	U.G.-S.F.	O.H.-S.L.	-	-	U.G.-D.	U.G.-D.	N.C.	-	-	35,000	-	-	-	35,000
ROAD "F"	HOLWORTHY	HOLLANDER	235'	7-26-7	NEW STREET	-	-	-	-	-	U.G.-D.	U.G.-D.	U.G.-D.	-	-	10,575	5,875	-	-	16,450
ROAD "G"	HOLWORTHY	HOLLANDER	235'	7-26-7	NEW STREET	-	-	-	-	-	U.G.-D.	U.G.-D.	U.G.-D.	-	-	10,575	5,875	-	-	16,450
HAROLD	TOWNSEND	HARRISHOF	300'	7-26-7	R	U.G.-S.F.	U.G.-S.F. U.G.-D.	O.H.-B.L.	-	-	U.G.-D.	U.G.-D.	N.C.	-	-	15,000	-	-	-	15,000
HAROLD	HARRISHOF	HOLWORTHY	235'	7-26-7	R	U.G.-S.F.	O.H.	O.H.-B.L.	-	-	U.G.-D.	U.G.-D.	N.C.	U.G.-D	-	11,750	-	4,950	-	16,700
HAROLD	WAUMBECK	CRAWFORD	330'	7-26-7	R	U.G.-S.F.	O.H.	O.H.-B.L.	-	-	U.G.-D.	U.G.-D.	N.C.	-	-	16,500	-	-	-	16,500
HARRISHOF	WALNUT AVE.	HAROLD	400'	7-26-7	O	O.H. U.G.-S.F.	O.H. U.G.-S.F.	O.H.-B.L.	U.G.-D.	-	U.G.-D.	U.G.-D.	O.H.-B.L.	N.C.	-	20,000	750	-	-	20,750
HARRISHOF	HAROLD	HUMBOLDT AVE.	830'	7-26-7	N.S.I.	U.G.-S.F.	O.H.	O.H.-B.L.	-	-	N.C.	N.C.	N.C.	U.G.-D.	-	-	-	3,200	-	9,200
HOLLANDER	CRAWFORD	ROAD "F"	410'	7-26-7	R	O.H.	O.H.	O.H.-B.L.	-	-	U.G.-D.	U.G.-D.	N.C.	-	-	20,500	-	-	-	20,500
HOLLANDER	ROAD "F"	ROAD "G"	350'	7-26-7	R	U.G.-S.F.	U.G.-S.F.	O.H.-B.L.	-	-	U.G.-D.	U.G.-D	N.C.	-	-	17,500	-	-	-	17,500
HOLWORTHY	WALNUT AVE.	HAROLD	440'	7-26-7	R	U.G.-S.F	O.H.	O.H.-B.L.	-	-	U.G.-D.	U.G.-D.	N.C.	-	-	22,000	-	-	-	22,000
HOLWORTHY	HAROLD	ROAD "G"	375'	7-26-7	R	U.G.-S.F.	O.H.	O.H.-B.L.	-	-	U.G.-D.	U.G.-D.	N.C.	-	-	18,750	-	-	-	18,750
HOWLAND	HUMBOLDT AVE.	ROAD "H"	530'	7-26-7	O	O.H.-B.L.	O.H.	O.H.-B.L.	-	-	N.C.	N.C.	N.C.	-	-	-	-	-	-	-
ROAD "H"	WAUMBECK	HOWLAND	210'	7-26-7	NEW STREET	-	-	-	-	-	U.G.-D.	U.G.-D.	U.G.-D.	-	-	9,450	5,250	-	-	14,700
WALNUT AVE.	TOWNSEND	HARRISHOF	260'	8-30-40-8	O-S	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	N.C.	N.C.	N.C.	N.C.	N.C.	-	-	-	-	-
WALNUT AVE.	HARRISHOF	HOLWORTHY	210'	8-30-40-8	O-S	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	N.C.	N.C.	N.C.	N.C.	N.C.	-	-	-	-	-
WARREN	DALE	WASH. PARK BLVD.	990'	9-35-50-9	R-S	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	N.C.	N.C.	N.C.	N.C.	N.C.	-	-	-	-	-
WARREN	WASH. PARK BLVD.	MUNROE	250'	9-35-50-9	R-S	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	N.C.	N.C.	N.C.	N.C.	N.C.	-	-	-	-	-
WARREN	MUNROE	TOWNSEND	370'	9-35-50-9	R-S	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	N.C.	N.C.	N.C.	N.C.	N.C.	-	-	-	-	-
WARREN	TOWNSEND	DECKARD	350'	9-35-50-9	R-S	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	U.G.-D.	N.C.	N.C.	N.C.	N.C.	N.C.	-	-	-	-	-

* SEE COMMENTS IN REPORT

DENOTES EXISTING WIDTHS, EXCEPT FOR NEW STREETS

PRIORITY NO. 4 - PART 2

STREET	FROM	TO	LENGTH	# ROADWAY S SIDEWALK WIDTH	TRAFFIC SIGNAL	PRESENT SERVICE					RECOMMENDED SERVICES					COST OF RECOMMENDED SERVICES				
						EXISTING SIGNALS	EXISTING SIGNALS	EXISTING SIGNALS	FIRE ALARM	TELEPHONE SIGNAL	RAILROAD POWER	RAILROAD SIGNALS	TEL.	FIRE ALARM	TELEPHONE SIGNAL	RAILROAD POWER	FIRE ALARM	TELEPHONE SIGNAL	RAILROAD POWER	TELEPHONE SIGNAL
WARREN	DECKARD	ELM HILL AVE.	800'	9-35-50-9	N.S.I.	U.G.-0.	U.G.-0.	U.G.-0	U.G.-0.	U.G.-0.	N.C.	N.C.	N.C.	N.C.	N.C.	-	-	-	-	-
WAUMBECK	CRAWFORD	HAROLD	330'	7-26-7	N.S.I. W	H.-B.L. O.H.	O.H.	O.H.-B.L.	-	-	N.C.	N.C.	N.C.	-	-	-	-	-	-	-
WAUMBECK	HAROLD	ROAD "H"	100'	7-26-7	N.S.I. W	O.H.	O.H.	O.H.-B.L.	O.H.	-	N.C.	N.C.	N.C.	N.C.	-	-	-	-	-	-
WAUMBECK	ROAD "H"	HUMBOLOT AVE.	550'	7-26-7	N.S.I.	O.H.	O.H.	O.H.-B.L.	O.H.	-	N.C.	N.C.	N.C.	N.C.	-	-	-	-	-	-
																PRIORITY NO. 4 TOTAL				
																256,100	18,950	14,150	-	289,200
																GRAND TOTAL				
																681,235	122,025	105,435	57,100	965,795

* SEE COMMENTS IN REPORT
DENOTES EXISTING WIDTHS

C. TABULATION OF STREETS, PRESENT SERVICES, RECOMMENDED SERVICES AND COST ESTIMATES (Cont.)

The following explanations and clarifications of the preceding tabulation are listed by priority number and street sections:

Priority No. 1

Charlame Street - Laurel Street to Catawba Street

All work is now under contract.

Munroe Street - Hazelwood Street to Warren Street

Munroe Street - Humboldt Avenue to Harold Street

Munroe Street - Harold Street to Walnut Avenue

In the three sections of Munroe Street listed above, no street improvements are recommended. On two sections of Munroe Street, the existing fire alarm system will be extended underground. In the absence of street improvements, it is our recommendation that the overhead power lines and telephone lines remain overhead on Munroe Street. If street repairs are undertaken, the utilities should then be placed underground.

The cost of converting overhead power lines to underground duct and manhole system would be \$88,000 for the 1760 feet of street. In addition to this cost, there would be the cost of placing 1410 feet of overhead telephone service underground which would amount to \$35,250 and make the total cost \$123,250.

Walnut Avenue - Washington Park Boulevard to Munroe Street

On Walnut Avenue, the only recommended street improvement is a pavement overlay. The power services are now underground in split

C. TABULATION OF STREETS, PRESENT SERVICES, RECOMMENDED
SERVICES AND COST ESTIMATES (Cont.)

fiber ducts with conduit laterals. Information from the Boston Edison Company indicates that the existing split fiber construction for their underground lines has given them very little trouble; however, all new construction is duct and manhole system. Since the only street improvement recommended at this time is an overlay, it is our recommendation that no change be made in the power service on this portion of Walnut Avenue. When major street improvements are made, the utility services can be converted to a duct and manhole system.

The cost of converting from a split fiber duct system to a duct and manhole system, without any visible improvement to the street, would be \$27,500 for the 550 feet of street.

Priority No. 2

Catawba Street - Laurel Street to New Sherman Street

On Catawba Street, there are two systems of power services of which 340 feet is in an underground duct and manhole system and 190 feet is overhead. Even though there are no street improvements contemplated on this street, it is our recommendation to change the 190 feet of overhead construction to an underground duct and manhole system.

C. TABULATION OF STREETS, PRESENT SERVICES, RECOMMENDED SERVICES AND COST ESTIMATES (Cont.)

In general, our recommendations are based on the following:

Where no street improvements are contemplated and power services are underground in split fiber duct with conduit laterals, the power service should remain without change until such time as major street repairs are necessary.

Where no street improvements are contemplated and power services are overhead, the power services should remain without change until such time as major street repairs are necessary.

Where pavement overlay only is contemplated and power services are underground in split fiber duct with conduit laterals, the power service should remain without change until such time as major street repairs are necessary.

On new streets, all services will be in a duct and manhole system.

Where a street is scheduled for repaving as part of the recommended program and power service is underground in split fiber duct with conduit laterals, the power service should be converted to a duct and manhole system, and we have included this work in our estimates.

Where a street is not to be repaved until some future date, power service being underground in split fiber duct with conduit laterals, conversion of the power service to a duct and manhole system should take place at that time. This future work is not included in our estimates.

C. TABULATION OF STREETS, PRESENT SERVICES, RECOMMENDED
SERVICES AND COST ESTIMATES (Cont.)

The feasibility of converting overhead power lines on streets to overhead power lines along rear lots was considered but found to be impractical in established residential areas. In addition to the problem of easements, construction costs, street crossings which should be underground in conduit from one back lot to the next, difficulty of maintenance, difficulty in feeding street lighting standards and other factors, the hazard to residents must be considered. Some high voltage lines, transformers and switches would be required. Telephone services present no such hazards.

D. COST ESTIMATE DETAILS

Power Costs

Power service costs for this report are figured on a general broad basis rather than on a breakdown cost for each individual item.

In general, the costs include manholes, duct banks, laterals to private property lines, main cable runs, lateral runs, transformers, etc.

Costs are broken down into three categories:

- (a) Cost to put overhead power services underground in duct and manhole system, at \$50.00 per linear foot of street.
- (b) Cost of new underground duct and manhole system on new streets, at \$45.00 per linear foot of street.
- (c) Cost to convert an underground split fiber system to an underground duct and manhole system, at \$50.00 per linear foot of street.

On existing streets where no street improvements are recommended, the cost of patching or new overlay is included in the costs shown above under (a) and (c).

Telephone Costs

Telephone service costs for this report are figured on a general broad basis rather than on a breakdown cost for each individual item.

D. COST ESTIMATE DETAILS (Cont.)

In general, the costs include manholes, duct banks, laterals to private property lines, main cable runs, lateral runs, poles, right-of-way costs, resurfacing streets, etc.

Costs are broken down into four categories:

- (a) Cost to put overhead telephone services underground in duct and manhole system, at \$25.00 per linear foot of street.
- (b) Cost of new underground duct and manhole system on new streets, at \$25.00 per linear foot of street.
- (c) Cost to convert an overhead system on a street to an overhead back lot system, at \$3.00 per linear foot of street.
- (d) Cost to convert an overhead back lot system to an overhead system on a street, at \$5.00 per linear foot of street.

Under (a) and (b) above, the cost does not include ledge excavation.

D. COST ESTIMATE DETAILS (Cont.)

Fire Alarm System Costs

1. Washington Park Boulevard - Warren St. to Humboldt Ave.

<u>Item</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total</u>
3" W.I. Conduit	L. F.	350	\$ 10.00	\$ 3,500.00
Manhole	Ea.	1	650.00	650.00
Fire Alarm Box & Pedestal	Ea.	1	400.00	400.00
Pedestal Base	Ea.	1	150.00	150.00
Cable	L. F.	385	1.50	<u>577.50</u>
				\$ 5,277.50
Engineering & Contingencies 20%				<u>1,055.50</u>
Total				\$ 6,333.00
Use				\$ 6,350.00

2. Washington Park Boulevard - Humboldt Ave. to Washington St.

<u>Item</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total</u>
3" W.I. Conduit	L. F.	750	\$ 10.00	\$ 7,500.00
Manhole	Ea.	2	650.00	1,300.00
Fire Alarm Box & Pedestal	Ea.	1	400.00	400.00
Pedestal Base	Ea.	1	150.00	150.00
Cable	L. F.	825	1.50	<u>1,237.50</u>
				\$10,587.50
Engineering & Contingencies 20%				<u>2,117.50</u>
Total				\$12,705.00
Use				\$12,700.00

D. COST ESTIMATE DETAILS (Cont.)

3. Crestwood Park - Townsend to Townsend

(Work Completed)

4. Munroe St. - Hazelwood St. to Warren St.

<u>Item</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total</u>
3" W.I. Conduit	L. F.	400	\$ 10.00	\$4,000.00
Manhole	Ea.	2	650.00	1,300.00
Fire Alarm Box & Pedestal	Ea.	1	400.00	400.00
Pedestal Base	Ea.	1	150.00	150.00
Cable	L. F.	440	1.50	<u>660.00</u>
				\$6,510.00
		Engineering & Contingencies 20%		<u>1,302.00</u>
			Total	\$7,812.00
			Use	\$7,800.00

D. COST ESTIMATE DETAILS (Cont.)

5. Munroe St. - Humboldt Ave. to Harold St.

<u>Item</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total</u>
3" W.I. Conduit	L.F.	400	\$ 10.00	\$4,000.00
Manhole	Ea.	1	650.00	650.00
Fire Alarm Box & Pedestal	Ea.	1	400.00	400.00
Pedestal Base	Ea.	1	150.00	150.00
Cable	L.F.	440	1.50	<u>660.00</u>
				\$5,860.00
Engineering & Contingencies 20%				<u>1,172.00</u>
Total				\$7,032.00
Use				\$7,050.00

6. Townsend St. - Walnut Ave. to Harold St.

<u>Item</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total</u>
3" W.I. Conduit	L.F.	50	\$ 10.00	\$ 500.00
Fire Alarm Box & Pedestal	Ea.	1	400.00	400.00
Pedestal Base	Ea.	1	150.00	150.00
Cable	L.F.	55	1.50	<u>82.50</u>
				\$1,132.50
Engineering & Contingencies 20%				<u>226.50</u>
Total				\$1,359.00
Use				\$1,360.00

D. COST ESTIMATE DETAILS (Cont.)

7. Dale Ave. - Walnut Ave. to Sherman St.

<u>Item</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total</u>
3" W.I. Conduit	L. F.	225	\$ 10.00	\$2,250.00
Manhole	Ea.	1	650.00	650.00
Fire Alarm Box & Pedestal	Ea.	1	400.00	400.00
Pedestal Base	Ea.	1	150.00	150.00
Cable	L. F.	247	1.50	<u>370.50</u>
				\$3,820.50
Engineering & Contingencies 20%				<u>764.10</u>
Total				\$4,584.60
Use				\$4,600.00

8. Crawford St. - Humboldt Ave. to Elm Hill Ave.

<u>Item</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total</u>
3" W.I. Conduit	L. F.	175	\$ 10.00	\$1,750.00
Manhole	Ea.	1	650.00	650.00
Fire Alarm Box & Pedestal	Ea.	1	400.00	400.00
Pedestal Base	Ea.	1	150.00	150.00
Cable	L. F.	192	1.50	<u>288.00</u>
				\$3,238.00
Engineering & Contingencies 20%				<u>647.60</u>
Total				\$3,885.60
Use				\$3,900.00

D. COST ESTIMATE DETAILS (Cont.)

9. Crawford St. - Elm Hill Ave. to Warren St.

<u>Item</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total</u>
3" W.I. Conduit	L. F.	250	\$ 10.00	\$2,500.00
Manhole	Ea.	1	650.00	650.00
Fire Alarm Box & Pedestal	Ea.	1	400.00	400.00
Pedestal Base	Ea.	1	150.00	150.00
Cable	L. F.	275	1.50	<u>412.50</u>
				\$4,112.50
Engineering & Contingencies 20%				<u>822.50</u>
Total				\$4,935.00
Use				\$4,950.00

10. Deckard St. - Humboldt Ave. to Warren St.

<u>Item</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total</u>
3" W.I. Conduit	L. F.	500	\$ 10.00	\$5,000.00
Manhole	Ea.	2	650.00	1,300.00
Fire Alarm Box & Pedestal	Ea.	1	400.00	400.00
Pedestal Base	Ea.	1	150.00	150.00
Cable	L. F.	550	1.50	<u>825.00</u>
				\$7,675.00
Engineering & Contingencies 20%				<u>1,535.00</u>
Total				\$9,210.00
Use				\$9,200.00

D. COST ESTIMATE DETAILS (Cont.)

11. Howland St. - Humboldt Ave. to Elm Hill Ave.

<u>Item</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total</u>
3" W.I. Conduit	L.F.	580	\$ 10.00	\$5,800.00
Manhole	Ea.	1	650.00	650.00
Fire Alarm Box & Pedestal	Ea.	1	400.00	400.00
Pedestal Base	Ea.	1	150.00	150.00
Cable	L.F.	638	1.50	<u>957.00</u>
				\$7,957.00
Engineering & Contingencies 20%				<u>1,591.40</u>
Total				\$9,548.40
Use				\$9,550.00

12. Wabeno St. - Waumbeck St. to Wyoming St.

<u>Item</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total</u>
3" W.I. Conduit	L.F.	230	\$ 10.00	\$2,300.00
Manhole	Ea.	1	650.00	650.00
Fire Alarm Box & Pedestal	Ea.	1	400.00	400.00
Pedestal Base	Ea.	1	150.00	150.00
Cable	L.F.	253	1.50	<u>379.50</u>
				\$3,879.50
Engineering & Contingencies 20%				<u>775.90</u>
Total				\$4,655.40
Use				\$4,650.00

D. COST ESTIMATE DETAILS (Cont.)

13. Waumbeck St. - Humboldt Ave. to Warren St.

<u>Item</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total</u>
3" W.I. Conduit	L.F.	780	\$ 10.00	\$ 7,800.00
Manhole	Ea.	2	650.00	1,300.00
Fire Alarm Box & Pedestal	Ea.	1	400.00	400.00
Pedestal Base	Ea.	1	150.00	150.00
Cable	L.F.	858	1.50	<u>1,287.00</u>
				\$10,937.00
Engineering & Contingencies 20%				<u>2,187.40</u>
Total				\$13,124.40
Use				\$13,125.00

14. Wyoming St. - Wabeno St. to Warren St.

<u>Item</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total</u>
3" W.I. Conduit	L.F.	330	\$ 10.00	\$ 3,300.00
Manhole	Ea.	1	650.00	650.00
Fire Alarm Box & Pedestal	Ea.	1	400.00	400.00
Pedestal Base	Ea.	1	150.00	150.00
Cable	L.F.	363	1.50	<u>544.50</u>
				\$ 5,044.50
Engineering & Contingencies 20%				<u>1,008.90</u>
Total				\$6,053.40
Use				\$6,050.00

D. COST ESTIMATE DETAILS (Cont.)

15. Harold St. - Harrishof St. to Holworthy St.

<u>Item</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total</u>
3" W.I. Conduit	L. F.	250	\$ 10.00	\$2,500.00
Manhole	Ea.	1	650.00	650.00
Fire Alarm Box & Pedestal	Ea.	1	400.00	400.00
Pedestal Base	Ea.	1	150.00	150.00
Cable	L. F.	275	1.50	<u>412.50</u>
				\$4,112.50
		Engineering & Contingencies 20%		<u>822.50</u>
		Total		\$4,935.00
		Use		\$4,950.00

16. Harrishof St. - Harold to Humboldt Ave.

<u>Item</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total</u>
3" W.I. Conduit	L. F.	500	\$ 10.00	\$5,000.00
Manhole	Ea.	2	650.00	1,300.00
Fire Alarm Box & Pedestal	Ea.	1	400.00	400.00
Pedestal Base	Ea.	1	150.00	150.00
Cable	L. F.	550	1.50	<u>825.00</u>
				\$7,675.00
		Engineering & Contingencies 20%		<u>1,535.00</u>
		Total		\$9,210.00
		Use		\$9,200.00

D. COST ESTIMATE DETAILS (Cont.)

Police Signal System Costs

1. Washington Park Boulevard - Humboldt Ave. to Washington St.

<u>Item</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total</u>
3" W. I. Conduit	L. F.	700	\$10. 00	\$ 7, 000. 00
Manholes	Ea.	3	600. 00	1, 800. 00
Police Box, Light, Post	Ea.	1	1 85. 00	185. 00
Police Box Base	Ea.	1	150. 00	150. 00
Cable	L. F.	770	3. 00	<u>2, 310. 00</u>
				\$11, 445. 00
	Engineering & Contingencies	20%		<u>2, 289. 00</u>
			Total	\$13, 734. 00
			Use	\$13, 750. 00

2. Humboldt Ave. - Washington Park Boulevard to Walnut Ave.

<u>Item</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total</u>
3" W. I. Conduit	L. F.	550	\$10. 00	\$ 5, 500. 00
Manholes	Ea.	2	600. 00	1, 200. 00
Cable	L. F.	605	3. 00	<u>1, 815. 00</u>
				\$ 8, 515. 00
	Engineering & Contingencies	20%		<u>1, 703. 00</u>
			Total	\$10, 218. 00
			Use	\$10, 225. 00

D. COST ESTIMATE DETAILS (Cont.)

3. Townsend St. - Walnut Ave. to Harold St.

<u>Item</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total</u>
3" W.I. Conduit	L. F.	400	\$ 10.00	\$ 4,000.00
Manhole	Ea.	1	600.00	600.00
Police Box, Light, Post	Ea.	1	185.00	185.00
Police Box Base	Ea.	1	150.00	150.00
Cable	L. F.	440	3.00	<u>1,320.00</u>
				\$ 6,255.00
Engineering & Contingencies 20%				<u>1,251.00</u>
Total				\$ 7,506.00
Use				\$ 7,500.00

4. Waumbeck St. - Humboldt Ave. to Warren St.

<u>Item</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total</u>
3" W.I. Conduit	L. F.	1,400	\$ 10.00	\$14,000.00
Manholes	Ea.	4	600.00	2,400.00
Police Box, Light, Post	Ea.	1	185.00	185.00
Police Box Base	Ea.	1	150.00	150.00
Cable	L. F.	1,540	3.00	<u>4,620.00</u>
				\$21,355.00
Engineering & Contingencies 20%				<u>4,271.00</u>
Total				\$25,626.00
Use				\$25,625.00

E. PLAN

The plan accompanying this report shows Priority Areas No. 1, No. 2, No. 3 and No. 4. The markings in the various streets indicate only the power services and show a composite picture of both existing construction and our recommended construction as indicated in the tabulation in paragraph "C. "

Washington Park
Fay, Spofford & Thorndike,
Inc.

Feasibility of placing utility services underground.

[illegible]

Washington Park
Fay, Spofford & Thorndike, Inc.
Feasibility of placing utility
services underground.

